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REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application is anticipated under the provisions of 35 U.S.C. § 102. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 1-10 UNDER 35 U.S.C. § 102

The Examiner has rejected claims 1-10 in the Office Action as being anticipated by the Nurenberg et al. patent (U.S. patent 6,181,697, issued on January 30, 2001, hereinafter Nurenberg). The Applicants respectfully traverse the rejection.

Nurenberg teaches a method for a unicast endpoint client to access multicast internet protocol (IP) sessions, and to redistribute the sessions in accordance with multipoint protocols. Specifically, Nurenberg teaches that a multicast-unicast server (MUS) provides information relating to currently in-progress or scheduled multicast sessions to a unicast client. The unicast client may then select a multicast group that it wishes to join, and the MUS will send and receive the relevant packets on behalf of the client, e.g., by converting the multicast address of the session packets to the unicast address of the requesting client. In turn, if the unicast client receiving the packets wants to "re-multicast" the packets to other members of a sub-network, then the unicast client is enabled to do so.

The Applicants' invention teaches a method for counting a number of multicast recipients and obtaining and storing summary information (e.g., demographics) about the multicast recipients, so that this summary information can be provided to content providers for immediate evaluation, e.g., for purposes including the direction of notices and advertisements to recipients. Specifically, Applicants' claim 1 positively recites:

1. A method of providing summary information about recipients of multicast sessions, comprising the steps of:
enhancing the operation of an edge device to count the number of recipient hosts of an IP multicast session;
storing the count in a measurement device and supplementing the count with information supplied from a directory source;

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generating aggregate information about audience levels and demographics of recipient hosts of the multicast session; and
supplying the information to a supplier of the multicast session permitting an immediate evaluation and response. (Emphasis added)

Applicants' invention is directed to a method for counting the number of recipient hosts of an IP multicast session and providing summary information about the recipients to session content providers. Source content providers (e.g., who provide content for distribution over multicast systems) desire to obtain new advantages from attributes that multicast systems present to networks over which the multicast systems operate. For example, by obtaining demographic information about multicast session recipients, content providers may be enabled to tailor operations such as billing and future multicast sessions. In addition, content providers may be enabled to tailor notices and advertisements sent to recipients of particular multicast sessions. Additionally, knowing the number of multicast session recipients also provides important information to the source content providers. However, many desired advancements do not conform to the protocol standards under which conventional multicast systems operate (e.g., Internet Group Management Protocol, or IGMP). Specifically, conventional IGMP packet headers do not provide enough data about recipients to enable content providers to satisfactorily tailor content such as notices and advertisements.

The present invention provides a method and apparatus for providing summary information about recipients of IP multicast sessions, e.g., by implementing modified IGMP packet headers in multicast sessions. In one embodiment, an IGMP packet header includes an additional data field that is in harmony with existing IGMP standards and provides the IP addresses of recipients joining and/or leaving multicast sessions. This allows an edge router to track the number of clients currently receiving a multicast session. A measurement collector coupled to the edge router obtains this number-of-streams data and combines it with user profile information (e.g., collected from multiple sources) received from a directory server, thereby producing aggregate global information (e.g., including audience levels and demographics) that enables evaluation of strategies by content providers, as recited by the Applicants' independent claim 1.

In contrast, Nuremberg is devoid of any teaching to count the number of IP

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multicast session recipients. The Examiner points to column 4, lines 10-17 and column 6, lines 15-40 of Nurenberg as disclosing a method that counts the number of recipient hosts of an IP multicast session. The Applicants respectfully submit that the Examiner has misinterpreted the referenced portions of Nurenberg. The referenced sections in fact teach that the method maintains a list of source IP addresses (See, Nurenberg, column 6, lines 18-19: "The messages contain the list of Multicast addresses that the re-Multicaster is volunteering to re-Multicast."). This is quite a different sum than a list of IP multicast recipients (e.g., several hundred recipients may be receiving information from a single multicast or source IP address). A list of multicast addresses is therefore not necessarily "equivalent" to a number of multicast recipients, as claimed by the Examiner.

Moreover, Nurenberg is devoid of any teaching to incorporate demographic information. The Examiner's allegation that group addresses are "demographic information" is overreaching. Thus, Nurenberg fails to anticipate the Applicants' independent claim 1 as recited above.

Therefore, the Applicants submit that independent claim 1 fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Dependent claims 2-10 depend from claim 1 and recite additional features therefore. As such, and for the exact same reason set forth above, the Applicants submit that claims 2-10 are not anticipated by the teachings of Nurenberg. Therefore, the Applicants submit that dependent claims 2-10 also fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

Conclusion

Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §102. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

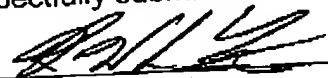
If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is

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requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

7/26/04
Date

Respectfully submitted,


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